

## **REMARKS**

This paper is responsive to any paper(s) indicated above, and is responsive in any other manner indicated below.

### **CONCURRENT REQUEST FOR CONTINUED EXAMINATION (RCE)**

Submitted concurrently herewith is a Request for Continued Examination (RCE) transmittal. In the event that the RCE transmittal is not filed herewith, then this paper should be taken as a request for the filing of an RCE.

### **TELEPHONE DISCUSSIONS / NON-FINAL RCE FIRST OFFICE ACTION**

The 22 June 2010 telephonic discussions (by and between Examiner Jeffrey J. Piziali and the Undersigned) is respectfully noted. In such telephone discussions, it was indicated by the Examiner that claim amendments of the scope of the present amendments to Applicant's claim(s) would require further search and consideration and thus an RCE would be required. Accordingly, in view of such telephone discussions and RCE filing, it is respectfully submitted that it would not be proper to make any next action final. The Examiner is thanked for such discussions, and for allowing Applicant to avoid the procedural/administrative delays associated with an after-final amendment and advisory action process.

### **PENDING CLAIMS**

Claims 1-10 were pending, under consideration and subjected to examination in the Office Action. Appropriate claims have been amended, canceled and/or added (without prejudice or disclaimer) in order to adjust a clarity and/or focus of

Applicant's claimed invention. That is, such changes are unrelated to any prior art or scope adjustment and are simply refocused claims in which Applicant is present interested. At entry of this paper, Claims 1-10 and 26 will be pending for further consideration and examination in the application.

### NON-ART REJECTIONS

It is respectfully noted that a great amount of rejections/time has been spent on non-art objections/rejections (e.g., semantics) within the present application (in comparison to other applications handled by the Undersigned during his career). The Undersigned respectfully points out the following portion of the MPEP, of relevance:

#### **706.03 Rejections Not Based on Prior Art**

The primary object of the examination of an application is to determine whether or not the claims are patentable over the prior art. This consideration should not be relegated to a secondary position while undue emphasis is given to nonprior art or "technical" rejections. Effort in examining should be concentrated on truly essential matters, minimizing or eliminating effort on technical rejections which are not really critical. ...

To the extent that the Examiner may be expressing his/her own personal preference regarding precision and/or semantics in claiming, MPEP 2173.01 is of interest and states:

A fundamental principle ...is that **applicants are their own lexicographers**. They can define in the claims what they regard as their invention . ...The examiner's focus during examination of claims ...is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. ...[The examiner] should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. Some **latitude** in the manner of expression and the aptness of terms should be permitted **even though the claim language is not as precise as the examiner might desire**.

Based upon the foregoing, a lessening of non-art objections/rejections, is respectfully requested.

### **EXTENSIVE PROSECUTION NOTED**

Applicant and the undersigned respectfully note the extensive prosecution which has been conducted to date with the present application, and thus Applicant and the undersigned would gratefully appreciate any considerations or guidance from the Examiner to help move the present application quickly to allowance. It is respectfully noted that this may be one of the types of situations in which, the Examiner's help in finding proper semantics to distinguish the invention over the applied art in a form acceptable to the Examiner, would be extremely helpful and greatly appreciated by Applicant.

### **35 USC '112, 1<sup>ST</sup> PARAGRAPH REJECTION - TRAVERSED**

Claims 1, 2, 4 and 5 have been rejected, under 35 USC '112, first paragraph, for the concerns listed within the "112" section on page 4 of the Office Action.

Traversal is appropriate.

More particularly, Applicant respectfully submits that the Office Action interpretation mischaracterizes or misinterprets Applicant's claims. That is, Office Action comments state (in part) that, "The claimed 'illumination panel areas' (in claim 1) is a purely functional recitation with no limitation of structure." Traversal is appropriate because such Office Action comments are ignoring the structure recited within claim 1. That is, Applicant's claim 1 more completely recited "an **illumination panel unit** divided into a plurality of illumination panel areas". Applicant's

“illumination panel unit” clearly is structural, and such structural entity is recited as being “divided into a plurality of” areas. Thus, it follows that Applicant’s “areas” (divided out of a structural entity) would likewise be structural. Such rejection appears to be an incomplete interpretation of semantics.

Despite such traversal, it is respectfully noted that Applicant’s claims have been significantly amended from the prior version of claims.

Based upon the foregoing, reconsideration and withdrawal of the above-referenced rejection are respectfully requested.

#### **REJECTION UNDER '112, 2ND PAR. OBVIATED VIA CLAIM AMENDMENT**

Claims 1, 2, 4 and 5 have been rejected under 35 USC '112, second paragraph, as being indefinite for the concerns listed within the section numbered 8-10 on pages 5 and 6 of the Office Action. **Traversal is appropriate.**

More particularly, Office Action comments recite (in relevant part; emphasis added):

...the phrase, “illumination panel areas” could be interpreted to mean:

(a) Fluorescent back-light tubes,

(b) **The front substrate of the display being illuminated by ambient room light,**

Due to the ambiguity ...that this claim element is amenable to two or more plausible claim constructions, this claim is ...indefinite...

Traversal is appropriate because such Office Action comments are ignoring limitations recited within claim 1. That is, Applicant’s claim 1 more completely recited “an **illumination panel unit** divided into a plurality of illumination panel areas **providing illumination to the liquid crystal display part;**”. Applicant respectfully submits that persons skilled in the art (and in fact any person reading such

limitations) would have understood (without ambiguity) that the recited “illumination panel unit” ...”providing illumination to the liquid crystal display part”, was the source of the provided illumination, and not any “ambient room light” falling on the LCD’s substrate. That is, **no person skilled in the art would have accepted the Office Action’s “(b)” interpretation.** At this point, Applicant respectfully notes that the specification is required to be **readable/understandable** to **one skilled in the art (not the Examiner)** so as **to teach such person how to make and use the invention.** In short, it is respectfully submitted that the above Office Action interpretation appears to be an incomplete or distorted interpretation of the semantics of the claims.

Despite such traversal, it is respectfully noted that Applicant’s claims have been significantly amended from the prior version of claims.

Based upon the foregoing, reconsideration and withdrawal of the '112 second paragraph rejection are respectfully requested.

### **REJECTION UNDER 35 USC '103**

The 35 USC '103 rejection of claims 1 and 2 as being unpatentable over Okumura et al. (U.S. Patent 6,115,018) in view of Chen (U.S. Patent 5,592,193), Miller et al. (U.S. Patent 6,411,306) and further in view of Terasaki (U.S. Patent 5,844,540); and the rejection of claims 4 and 5 as being unpatentable over Okumura et al. (U.S. Patent 6,115,018) in view of Chen (U.S. Patent 5,592,193), Miller et al. (U.S. Patent 6,411,306), Terasaki (U.S. Patent 5,844,540) and further in view of Helms (U.S. Patent 5,952,992) is respectfully traversed. However, such rejections have been rendered obsolete by the present clarifying amendments to Applicant’s

claims, and accordingly, traversal arguments are not appropriate at this time.

However, Applicant respectfully submits the following to preclude renewal of any such rejections against Applicant's clarified claims.

All descriptions of Applicant's disclosed and claimed invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated hereat by reference. Further, all Office Action statements regarding the prior art rejections are respectfully traversed. As additional arguments, Applicant respectfully submits the following.

**Applicant's disclosed and claimed combination invention** is directed toward liquid crystal display arrangements (e.g., apparatus, methods) allowing generation/display of high quality motion pictures with less after image when displaying motion pictures, and with less fuzzy images due to equalization. Applicant found that such could be accomplished by comparing a prior image together with a present image, and then adjusting both of an LCD's illumination start/on times responsive to a result of the comparison.

Regarding distinguishing features/limitations, Applicant's clarified **claim 1** (taken as an example) states: "A liquid crystal display apparatus comprising: a pair of substrates, at least one of which is transparent; a liquid crystal layer disposed between the pair of substrates; a plurality of groups of electrodes disposed on at least one of the pair of substrates for applying an electric field to the liquid crystal layer; a liquid crystal display part having a plurality of active elements connected to the electrodes; a drive means, supplied with display data from a means for supplying display data, the drive means for driving individual pixels of the liquid crystal display

part by applying a voltage corresponding to the display data to the individual pixels, the drive means including a data emphasis means for comparing new display data supplied for a current display frame from the means for supplying display data, with previous display data supplied for a previous display frame from the means for supplying display data, and for emphasizing the new display data **to effect an overshoot drive to drive the liquid crystal display portion so that a transmittance level exceeds a designated transmittance level within a first frame period and is maintained to exceed the designated transmittance level within a second frame period subsequent to the first frame period**, in response to a difference detected between the previous display data and new display data as a result of the comparison; an illumination panel unit divided into a plurality of illumination panel portions, with each illumination panel portion having a light source providing illumination to the liquid crystal display part; and an illumination control means, responsive to the overshoot drive resulting in the transmittance level exceeding the designated transmittance level, for dynamically controlling an illumination start time and an illumination "on" time of the light source of individual said illumination panel portions, respectively, **so that a time integral value of transmittance for an overshoot-frame, is equal to a time integral value of transmittance for a non-overshoot frame in which the transmission reaches and stays in a stable state at the designated transmittance level.**"

Independent **claim 26** (taken as another example) recites: "A liquid crystal display apparatus comprising: a pair of substrates, at least one of which is transparent; a liquid crystal layer disposed between the pair of substrates; a plurality of groups of electrodes disposed on at least one of the pair of substrates for applying

an electric field to the liquid crystal layer; a liquid crystal display part having a plurality of active elements connected to the electrodes; a drive means, supplied with display data from a means for supplying display data, the drive means for driving individual pixels of the liquid crystal display part by applying a voltage corresponding to the display data to the individual pixels, the drive means including a data emphasis means for comparing new display data supplied for a current display frame from the means for supplying display data, with previous display data supplied for a previous display frame from the means for supplying display data, and for emphasizing the new display data **to effect an overshoot drive to drive the liquid crystal display portion so that a transmittance level exceeds a designated transmittance level within a first frame period and is maintained to exceed the designated transmittance level within a second frame period subsequent to the first frame period**, in response to a difference detected between the previous display data and new display data as a result of the comparison; an illumination panel unit divided into a plurality of illumination panel portions, with each illumination panel portion having a light source providing illumination to the liquid crystal display part; and an illumination control means, responsive to the overshoot drive resulting in the transmittance level exceeding the designated transmittance level, for dynamically controlling an illumination start time and an illumination "on" time of the light source of individual said illumination panel portions, respectively, **so that a time integral value of transmittance for a time period occupied by the illumination "on" time in an overshoot-frame period is equal to a time integral value of transmittance for a time period occupied by the illumination "on" time in a frame period in which transmittance is in a stable state.**



Turning to rebuttal of the previously-applied art, **Okumura et al** describes in column 9, lines 1-7:

“... a voltage obtained by adding a motion image voltage  $V_{in}$  to the voltage  $V_{et}$  in the static image display mode in the plus direction with respect to the common voltage  $V_{com}$  is applied in the K field as the motion pixel voltage  $V_{pmn(m)}$ , as shown in FIG. 2E.”

In view of this description, Applicant respectfully submits that Okumura et al would merely consider the driving voltages in the static image display mode and the motion image display mode, and would neither disclose nor suggest the features of Applicant's claims as emphasized above. That is, Okumura et al makes no reference to “transmittance” or to the relationship between “frame period” and “transmittance”.

**Miller et al** would merely consider “illuminance” (columns 5-6), as is apparent from the fact that Miller et al discusses “equal / not equal” as to “illuminance”, referring to the flow diagram shown in Fig. 5. Namely, Miller et al also makes no reference to “transmittance” or to a relationship between “frame period” and “transmittance”. As a conclusion, Miller et al also neither discloses nor suggests the features of the present invention as emphasized above

Further, regarding **Terasaki**, Applicant's present invention considers “transmittance”, and therefore it is Fig. 17 which should be compared with the present invention in Terasaki, because Fig. 17 refers to “transmittance”. Therefore, Applicant respectfully submits that the passage of Terasaki indicated by the Examiner in page 10 of the office action would not be appropriate in comparing Terasaki with Applicant's present invention. It should be noted that Terasaki merely displaces the lighting position of the backlight according to the timing in which

transmittance becomes a maximum, as apparent from the following description at column 16, lines 15-19 of Terasaki:

“In this case, when the light transmittance changes from the minimum value to the maximum value (time  $t_1$  at which the scanning is performed), since the brightness of the back light is low, the brightness of the liquid crystal display changes but very little.”

Thus, Terasaki also neither discloses nor suggests the features of Applicant's present invention as emphasized above.

As further argument, Applicant respectfully submits that the column 1, lines 16-60 and column 11, line 40-column 13, line 20 of Terasaki pointed out within the Office Action, have nothing to do (i.e., no relevance) with the above-emphasized features of Applicant's present invention.

No other previously-applied reference cures the major deficiencies mentioned above with respect to the above-discussed reference(s). Given that the previously-applied references are mutually deficient in at least one regard, it is respectfully submitted that the previously-applied references (whether taken individually, or in combination) would not have disclosed or suggested Applicant's claimed invention.

As a result of all of the foregoing, it is respectfully submitted that the applied art (taken alone and in the Office Action combinations) would not support a '103 obviousness-type rejection of Applicant's claims. Accordingly, reconsideration and withdrawal of such '103 rejection, and express written allowance of all of the '103 rejected claims, are respectfully requested.

### **EXAMINER INVITED TO TELEPHONE**

The Examiner is herein invited to telephone the undersigned attorneys at the local Washington, D.C. area telephone number of 703/312-6600 for discussing any Examiner's Amendments or other suggested actions for accelerating prosecution and moving the present application to allowance.

### **RESERVATION OF RIGHTS**

It is respectfully submitted that any and all claim amendments and/or cancellations submitted within this paper and throughout prosecution of the present application are without prejudice or disclaimer. That is, any above statements, or any present amendment or cancellation of claims (all made without prejudice or disclaimer), should not be taken as an indication or admission that any objection/rejection was valid, or as a disclaimer of any scope or subject matter. Applicant respectfully reserves all rights to file subsequent related application(s) (including reissue applications) directed to any/all previously claimed limitations/features which have been subsequently amended or cancelled, or to any/all limitations/features not yet claimed, i.e., Applicant continues (indefinitely) to maintain no intention or desire to dedicate or surrender any limitations/features of subject matter of the present application to the public.

### **CONCLUSION**

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above as presently being under consideration in the application are now in condition for allowance.

To the extent necessary, Applicant petitions for an extension of time under 37 CFR 1.136. Authorization is herein given to charge any shortage in the fees, including extension of time fees and excess claim fees, to Deposit Account No. 01-2135 (Case No. 503.39221CX1) and please credit any excess fees to such deposit account.

Based upon all of the foregoing, allowance of all presently-pending claims is respectfully requested.

Respectfully submitted,

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